

Name

Kay

Date

## 2.6 Homework

Complete the 2 proofs below and do p.116-118 #s 1, 4, 12, 21, 22 (don't use B in your answer-repeat one of the choices)

1. Given:  $m\angle 1 = m\angle 3$ Prove:  $m\angle ABE = m\angle DBC$ 

Statements

Reasons

①  $m\angle 1 = m\angle 3$

① Given

②  $m\angle 2 = m\angle 2$

② Ref

③  $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 2$

③ Add

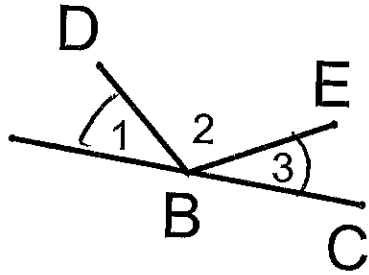
④  $m\angle 1 + m\angle 2 = m\angle ABE$

④ A.P.

$m\angle 3 + m\angle 2 = m\angle DBC$

⑤  $m\angle ABE = m\angle DBC$

⑤ Subst

2. Given:  $AC = DF$ ;  $BC = EF$ Prove:  $AB = DE$ 

Statements

Reasons

①  $\sim$

① Given

②  $AC = AB + BC$

② SAP

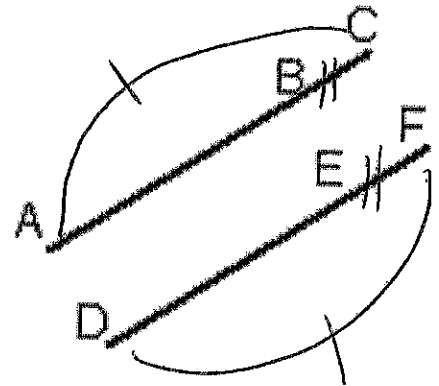
$DF = DE + EF$

③ Subst

③  $AB + BC = DE + EF$

④ Subtr.

④  $AB = DE$



1. theorem - can be proven  
postulate - assumed true  
accepted as true

~~AM~~ 3 subst  
4. ACCH

4. A  
5.  $\overline{SE}$   
6.  $\angle JKL \cong \angle RST$   
7.  $\angle J \cong \angle L$   
8. symmetric  
9. Reflexive  
10. transitive  
11. Reflexive (same measurement)  
12. C

21. 2. Def of  $\angle$  Bisector  
4. Transitive

22. 1. D  
2. A  
3. F  
4. C  
5. G  
6. G  
7. E